GENERAL NPDES PERMIT FOR PESTICIDE RESIDUE DISCHARGES FROM MOSQUITO CONTROL APPLICATIONS

ORDER NO. 2011-XXXX-DWQ NPDES NO. CAGXXXXXX

ATTACHMENT G - NOTICE OF INTENT

RECEIVED

WATER QUALITY ORDER NO. 2011-XXXX-DWQ GENERAL PERMIT NO. CAG XXXXXX MAR 1 1 2011

DIVISION OF WATER QUALITY

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR RESIDUAL PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM MOSQUITO CONTROL APPLICATIONS

FROM	IIOSQUITO CONTROL A	PPLICATIONS	
I. NOTICE OF INTENT STATUS (•		
Mark only one item A. New Appli	cator 🛘 B. Change of Inforn	nation: WDID#	
☐C. Change o	f ownership or responsibility: W	VDID#	
II. DISCHARGER INFORMATION			
A. Name Napa County Mosquito Abatement Dis	strict		
B. Mailing Address P.O. Box 10053			
C. City American Canyon	D. County Napa	E. State CA	F. Zip 94503
G. Contact Person Wesley Maffei	H. Email address Bugsydoc1@yahoo.com	i. Title Manager	J. Phone 707-553-9610
III. BILLING ADDRESS (Enter Info	ormation <u>only</u> if different fron	n Section II above)	
A. Name			N
B. Mailing Address			
C. City	D. County	E. State	F. Zip
G. Email address	H. Title	I. Phone	

GENERAL NPDES PERMIT FOR RESIDUAL PESTICIDE DISCHARGES FROM MOSQUITO CONTROL APPLICATIONS

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IV. RECEIVING WATER INFORMATION Pesticide residues discharge to (check all that apply): Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger. 1,-, Name of the conveyance system: Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger. Owner's name: County of Napa Name of the conveyance system: Directly to river, lake, creek, stream, bay, ocean, etc. 3. Name of water body: San Pablo Bay and Suisun Bay \mathbf{M} Regional Water Quality Control Board(s) where application areas are located (REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region ____ 2 and 5 (List all regions where pesticide application is proposed.) V. PESTICIDE APPLICATION INFORMATION A. Target Organisms: X Mosquito Larvae X Adult Mosquito B. Pesticides Used: List Name and Active ingredients 5% Skeeter Abate - temephos Altosid - s-methoprene BVA - refined petroleum distallate Golden Bear 1111 - mineral oil Teknar HPD -- Bacillus thuringiensis var. israeliensis (Bti) Vectobac 12AS - Bacillua thuringiensis var. israelensis Vectobac tech powder - Bacillus thuringiensis var. israelensis Vectolex - Bacillus sphaericus (Bs) Vectomax WSP - Bti and Bs Permanone - permethrin Pyrenone 25-5 - pyrethrin Pyrocide - pyrethrin Pyronyl - pyrethrin C. Period of Application: Start Date Jan 1, 2011 End Date December 31, 2016 Continuous App. Project D. Types of Adjuvants Used: None VI. PESTICIDES APPLICATION PLAN Has a Pesticides Application Plan been prepared and is the applicator familiar with its contents? ▼ Yes If not, when will it be prepared? VII. NOTIFICATION Have potentially affected public and governmental agencies been notified? **⊠**Yes ☐ No

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VIII. FEE						
Have you included payment of the filing fee (ubmittal?				
IX. CERTIFICATION						
"I certify under penalty of law that this do supervision in accordance with a system the information submitted. Based on my persons directly responsible for gatherin knowledge and belief, true, accurate, an false information, including the possibility General Permit, including developing an	n designed to ensure that qualified person inquiry of the person or persons who g the information, the information subn d complete. I am aware that there are y of fine or imprisonment. Additionally,	sonnel properly gather and evalumanage the system, or those nitted is, to the best of my significant penalties for submitting that the provisions of the state of	ing			
A. Printed Name: <u>Wesley A. Maffei</u>			-			
B. Signature: Was Lear A.	Ma/ Date: 0	4 March, 2011	<			
C. Title: <u>Manager</u>						
X. FOR REGIONAL WATER BOARD U	SE ONLY		0			
WDID:	Date NOI Received:	Date NOI Processed:				
Case Handler's Initial: Fee Amount Received*: Check #:						

For Region 5:

The northern half of Napa County is within Region 5 and includes Lake Berryessa, Monticello Dam and many creeks that feed into Lake Berryessa as well as the few that also drain into Lake County (which is region 5). Some of the more significant creeks within Region 5 are: Butts Creek, Bohn Creek, Pope Creek, Troutdale Creek, Van Ness Creek, Jericho Creek, Garnett Creek, Upper Napa River (drains into Region 2), Swartz Creek, James Creek, Cedar Creek, Pocock Creek, Mysterious Creek, Knoxville Creek, Foley Creek, Upper Hunting Creek, Nevada Creek, Eticuera Creek, Adams Creek, Blue Ridge Creek, Monticello Creek, Putah Creek, St Helena Creek, and John Thomas Creek. It is important to note that water from Lake Berryessa also drains through Monticello Dam (all Region 5) and out to Suisun Bay (most of which appears to be Region 2 with a small eastern portion possibly being Region 5).

For Region 2:

San Pablo Bay, most of Suisun Bay are region 2 as well as the central and southern portions of the Napa River (including the numerous creeks that feed into the Napa River) which flows into San Pablo Bay.

Napa County can also be divided into three watersheds: Putah Creek watershed which drains into Lake Berryessa (region 5); Napa River watershed which drains into San Pablo Bay (region 2); and the Suisun Creek Watershed which drains into San Pablo Bay and western Suisun Bay (Region 2).

Napa County Mosquito Abatement District Pesticide Application Plan DIVISION OF WATER QUALITY

- 1. Description of Activities and Core PAP Elements:
 - a. Description of the target area and adjacent areas, if different from the water body of the target area;

The District is responsible for all potential mosquito breeding sources within the boundaries of Napa County.

Please see attached map.

 b. Discussion of the factors influencing the decision to select pesticide applications for mosquito control;
 Please see the Best Management Practices for Mosquito Control in California

 Type(s) of pesticides used, the method in which they are applied, and if applicable, the adjuvants and surfactants used;
 Please see the Best Management Practices for Mosquito Control in California

d. Description of the types and locations of the anticipated application area* and the target area to be treated by the Discharger, recognizing that, with vector control, the precise locations may not be known until after surveillance;

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District's preferred solution, and whenever possible the District works with property owners to effect long-term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California. The typical sources treated by this District include:

1. Larviciding:

Tidal marsh, freshwater marsh, reclaimed marsh, seasonal wetlands, freshwater seeps, creeks, streams, diked marsh, canals, flood control, channels, ditches, storm water detention basins, storm drains, waste water ponds, rainwater gutters, water troughs, water gardens, and various manmade water containers.

2. Adulticiding:

Riparian corridors, oak woodland, tidal marsh, freshwater marsh, reclaimed marsh, seasonal wetland, and diked marsh.

e. Other control methods used (alternatives) and their limitations;

With any mosquito or other vector source, the District's first goal is to look for ways to eliminate the source, or, if that is not possible, for ways to reduce the vector potential. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California.

Specific methods used by the District include the use of mosquito fish (*Gambusia affinis*), providing educational materials to residents on mosquito development in standing water and encouraging removal of sources on their property, working with property owners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications. The District also works closely with other agencies within the County in order to promote best management practices amongst those who manage water resources and can have a direct impact on the reduction of mosquito breeding without the use of pesticides.

f. Approximately how much product is anticipated to be used and how this amount was determined

Please see attached 2010 pesticide use summary. Total annual amounts of materials used determined from the summation of all 2010 monthly summary pesticide use reports submitted to the Napa County Agricultural Commissioner's office. Projected future usage may vary depending on weather pattern (precipitation, wind, ambient temperatures, etc) and management of water and vegetation by landowners.

g. Representative monitoring locations* and the justification for selecting these monitoring locations

Please see the MVCAC NPDES Coalition Monitoring Plan

h. Evaluation of available BMPs to determine if there are feasible alternatives to the selected pesticide application project that could reduce potential water quality impacts; and

Please see the Best Management Practices for Mosquito Control in California

i. Description of the BMPs to be implemented

Please see the Best Management Practices for Mosquito Control in California

- 2. The Discharger shall update the PAP periodically and submit the revised PAP to the State Water Board for approval if there are any changes to the original PAP.
 - a. The District, at a minimum, annually reviews all of its programs and BMP's and appropriately notifies all concerned agencies and parties of any proposed changes to its activities and programs.

3. Best Management Practices (BMPs)

The District's BMPs are described in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan.

a. Identify the Problem

Prior to first pesticide application covered under this General Permit that will result in a discharge of residual pesticides to waters of the US, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the Discharger must do the following for each vector management area:

1. Establish densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies

Only those mosquito sources that District staff determine to represent imminent threats to public health or quality of life are treated. The presence of any mosquito may necessitate treatment, however higher thresholds may be applied depending on the District's resources, disease activity, or local needs. Treatment thresholds are based on a combination of one or more of the following criteria:

- Mosquito species present
- Mosquito stage of development
- Pest, nuisance, or disease potential
- Disease activity
- Mosquito abundance
- Flight range
- Proximity to populated areas
- Size of source
- Presence/absence of natural enemies or predators
- Presence of sensitive/endangered species or habitats.
- 2. Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species;

Please see the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan.

3. Identify known breeding areas for source reduction, larval control program, and habitat management; and

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District's preferred solution, and whenever possible the District works with property owners to implement long-term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California.

4. Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.

This is included in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan that the Districts uses. The District continually collects adult and larval mosquito surveillance data, dead bird reports, mosquito pool and sentinel chicken test results and uses this information to guide mosquito control activities.

- b. Examine the Possibility of Alternatives to Treatments
 Dischargers should continue to examine the possibility of alternatives to
 reduce the need for applying larvicides that contain temephos and for spraying
 adulticides. Such methods include:
 - 1. Evaluating management and treatment options that may impact water quality, non-target organisms, vector resistance, feasibility, and cost effectiveness. such as:
 - No action
 - Source prevention
 - Mechanical or physical source reduction methods
 - Cultural methods
 - Biological control agents
 - Pesticides
 - 2. Applying pesticides only when vectors are present at a level that will constitute a nuisance or threat to public health
 - 3. Using the least intrusive method of pesticide application.
 - 4. Public education efforts to reduce potential vector breeding habitat.
 - 5. Applying a decision matrix concept to the choice of the most appropriate formulation.

This describes the District's existing integrated vector management (IVM) program, as well as the practices described in the California Mosquito-borne

Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California that are used by this agency.

c. Correct Use of Pesticides

Users of pesticides must ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications. Reasonable precautions include using the proper spraying techniques and equipment, taking account of weather conditions and the need to protect the environment.

- 1. All errors in application and spills are reported to the proper authority.
- 2. Staff training in the proper application of pesticides and handling of spills.

This is an existing practice of the District, and is required to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of our California Department of Public Health (CDPH) Cooperative Agreement. All pesticide applicators receive annual safety and spill training in addition to their regular continuing education.

4. Pesticide Application Log

The Discharger shall maintain a log for each pesticide application. The application log shall contain, at a minimum, the following information, when practical, for larvicide or adulticide applications:

- a. Date of application:
- b. Location of the application and target areas (e.g., address, crossroads, or map coordinates);
- c. Name of applicator;
- d. The names of the water bodies treated if known/ named(i.e., canal, creek, lake, etc.);
- e. Application details, such as when the application started and stopped, pesticide application rate and concentration, water flow rate of the target area, surface water area, volume of water treated, pesticide(s) and adjuvants used by the Discharger, and volume or mass of each component discharged;

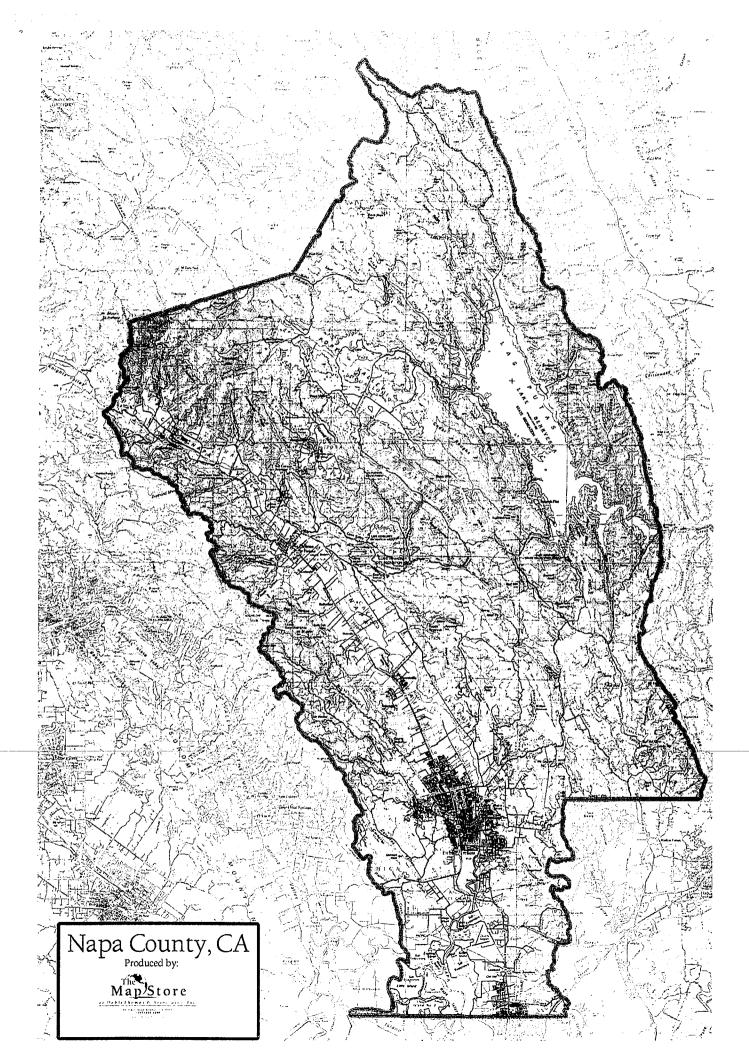
This is an existing practice of the District as required to comply with DPR regulations and our CDPH Cooperative Agreement requirements.

5. References:

a. Best Management Practices for Mosquito Control in California. 2010.

Available by download from the California Department of Public Health-Vector-Borne Disease Section at http://www.cdph.ca.gov/HealthInfo/discond/Pages/MosquitoBorneDiseases.aspx or http://www.westnile.ca.gov/resources.php under the heading Mosquito Control and Repellent Information. Copies may be also requested by calling the California Department of Public Health-

- Vector-Borne Disease Section at (916) 552-9730 or the Napa County Mosquito Abatement District at (707) 553-9610.
- b. California Mosquito-borne Virus Surveillance and Response Plan. 2010. [Note: this document is updated annually by CDPH]. Available by download from the California Department of Public Health-Vector-Borne Disease Section at http://www.cdph.ca.gov/HealthInfo/discond/Pages/MosquitoBorneDiseases.aspx or http://www.westnile.ca.gov/resources.php under the heading Response Plans and Guidelines. Copies may be also requested by calling the California Department of Public Health-Vector-Borne Disease Section at (916) 552-9730 or the Napa County Mosquito Abatement District at 707-553-9610.



Napa County Mosquito Abatement District Pesticide Use Summary (Active Ingredient)

													i					:				
Pyronyl				0.12	0.68	0.14			- PAA									0.94	gallons)		
Pyrocide							0.45											0.45	gallons			
Pyrenone	1			60.0	0.73	1.08	0.98											2.88	gallons			
Permanone							0.07		0.05									0.12	gallons			
Tech pwdr F	┝				0.82		0.45	0.14	0.65			2.05						4.11	spunod			
Vectolex 7		45.02	126.56	56.28	15.94	45.96	51.12	77.8	74.02	3.72								496.42	spunod			
Abate	22.7	7.6	25.44	5.52	11.52	15.92	8.16	4.56	4.16	3.92	2.96	4.4						116.86	onuces			
Briquets		1.86	4.9	2.67	2.18	5.6	10.52	9	7.92	0.11	0.26	96.0						43.52	seouno			
A Pellets	24.7	22.8	43.8	14.46	63.84	70.14	26.34	16.9	20.16	2.22	12.42	16.64		 :				334.42	onuces			
Teknar	0.24	0.68	1.3	0.94	0.21	0.34	0.37	0.52	0.18	0.03	0.07	0.08						4.96	gallons			
A.L.L.	0.18	0.49	0.99	0.58	0.17	0.26	0.24	0.34	0.15	0.02	0.06	0.06						3.54	gallons			
BVA			13.03	2.42	0.51				0.29		1	0.5						17.75	gallons			
GB 1111	17.3	81.38	122.96	42.53	7.06	8.82	3.38	15.9	9.13	0.49	9.6	18						336.55	gallons			
2010	January	February	March	April	May	June	July	August	September	October	November	December										